

REMARKS

In the Office Action dated September 30, 2004, claim 3 was objected to because of informalities regarding consistency of the terminology used therein. Claim 3 has been amended to remove those inconsistencies.

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Claims 1 and 2 were rejected under 35 U.S.C. §102(b) as being anticipated by Bowers, or in the alternative under 35 U.S.C. §103(a) as obvious over Bowers. Claim 3 was stated to be allowable if rewritten in independent form.

The above rejection of claims 1 and 2 is respectfully traversed and therefore claim 3 has been retained in dependent form at this time.

In substantiating the rejection of claims 1 and 2 based on the Bowers reference, the Examiner did not specifically identify elements or components of the measuring instrument disclosed in the Bowers reference, in a manner correlating those elements or components with the language of claims 1 and 2. The Examiner simply repeated the language from claim 1, and stated that Figures 1 and 5 of the Bowers reference show such a measuring instrument.

Claim 1 explicitly requires that the fluid that is being monitored by the transducer be communicated a rear surface of the transducer. Applicant is unable to find any structure in the Bowers reference that performs such a function. In the Bowers reference, the transducer in question is the SAW sensor 12. In the embodiment of Figure 1, it can be seen that the SAW sensor 12 is mounted with the entirety of its rear surface against a heat sink 25. In the embodiment of Figure 1 of Bowers, therefore, there does not appear to be any spaces or conduits by which fluid to be monitored could reach the rear surface of the SAW sensor 12. In fact, if this

were the case, thermal communication between the SAW sensor 12 and the heat sink 25 would be degraded, thereby destroying the intended operation of the heat sink 25.

In the embodiment shown in Figure 3, the sensor 12 is formed by two SAW elements 52 and 54. The sensor 12 is indicated by dashed lines, and the rear surface of the sensor 12 in Figure 3 appears to be behind a separating wall (not provided with a reference numeral in the Bowers specification) that would prevent the fluid that is acting on the front surface of the sensor 12 from ever reaching the rear surface of the sensor 12.

In no embodiment of the Bowers reference, therefore, is fluid, a characteristic of which is being monitored via front surface of the sensor, permitted to reach a rear surface of the sensor.

Independent claim 1 has been editorially amended to make clear that it is the fluid that is being monitored that is communicated to the rear surface of the transducer, and that the result of communicating this fluid is to substantially equalize the fluid pressure at the front surface of the transducer and the rear surface of the transducer. Support for this editorial amendment in claim 1 is present in the specification as originally filed in the paragraph beginning at page 3, line 3, as well as at page 4, lines 17 and 18. This feature is also described in the first paragraph on page 5 of the present specification. Those paragraphs also describe the advantages that result from allowing such communication of the fluid to substantially equalize the pressure at the front and rear surfaces of the transducer.

Since the Bowers reference does not provide any structure that communicates fluid to be monitored at a front surface of a transducer, to the rear

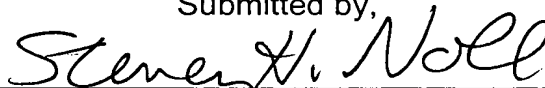
surface of the transducer so as to substantially equalize the pressure at the front and rear surfaces, the Bowers reference does not disclose all of the elements of claim 1 as arranged and operating in that claim, and therefore does not anticipate claim 1.

Moreover, in view of the complete absence of any such communicating structure in the Bowers reference, it would not have been obvious to a person of ordinary skill in the art in the field of fluid monitoring to modify the measuring instrument disclosed in the Bowers reference to provide for such pressure equalization. The Bowers reference does not even provide a recognition that such pressure equalization would be of any benefit, and therefore provides no teaching, motivation or inducement to modify the structure disclosed therein to provide for such pressure equalization.

Claim 2 adds further structure to the novel and non-obvious combination of claim 1, and therefore is not anticipated by, nor rendered obvious in view of, the Bowers reference for the same reasons discussed above in connection with claim 1.

All claims of the application are therefore submitted to be in condition for allowance, and early reconsideration of the application is respectfully requested.

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